



# DigiTemp™

## Digital Water Tempering System

### Features

- Configurable on location. Does not require factory pre-programming or special software and laptop
- Controls water temperature to  $\pm 2^{\circ}\text{F}$  in accordance with ASSE 1017
- Control  $\pm 2^{\circ}\text{F}$  during periods of low/zero demand
- 3.5" full-color, user-selectable touch screen display
- User programmable high-temperature sanitization mode
- In case of power or cold water failure, valve flows full cold for safety with manual override feature to set mixed outlet temperature
- Settings can be adjusted/monitored at the controller or remotely through BAS (Building Automation System)
- Displays pressure, temperature and flow/BTU data
- Pass code protected for security
- User programmable high temperature alarm
- Five-year warranty
- NSF 372 compliant

### Flow Capacity

|        |                     |                      | Pressure Drop Across Valve |                       |                       |                       |                       |
|--------|---------------------|----------------------|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Model  | Valve Configuration | Min. System Draw     | $C_v$                      | 5 psi<br>(34 kPa)     | 10 psi<br>(69 kPa)    | 20 psi<br>(138 kPa)   | 30 psi<br>(207 kPa)   |
| V85    | 1.5" Single Valve   | 0.5 gpm<br>(1.9 lpm) | 26.88                      | 60 gpm<br>(227 lpm)   | 85 gpm<br>(322 lpm)   | 120 gpm<br>(454 lpm)  | 147 gpm<br>(556 lpm)  |
| V135   | 2" Single Valve     | 0.5 gpm<br>(1.9 lpm) | 42.70                      | 96 gpm<br>(363 lpm)   | 135 gpm<br>(511 lpm)  | 191 gpm<br>(723 lpm)  | 234 gpm<br>(886 lpm)  |
| V85-2  | 1.5" Dual Valve     | 0.5 gpm<br>(1.9 lpm) | 53.57                      | 120 gpm<br>(454 lpm)  | 170 gpm<br>(644 lpm)  | 240 gpm<br>(908 lpm)  | 294 gpm<br>(1113 lpm) |
| V135-2 | 2" Dual Valve       | 0.5 gpm<br>(1.9 lpm) | 85.27                      | 192 gpm<br>(727 lpm)  | 270 gpm<br>(1022 lpm) | 382 gpm<br>(1446 lpm) | 468 gpm<br>(1772 lpm) |
| V135-3 | 2" Triple Valve     | 0.5 gpm<br>(1.9 lpm) | 127.90                     | 288 gpm<br>(1090 lpm) | 405 gpm<br>(1533 lpm) | 573 gpm<br>(2169 lpm) | 702 gpm<br>(2657 lpm) |

### Specifications\*

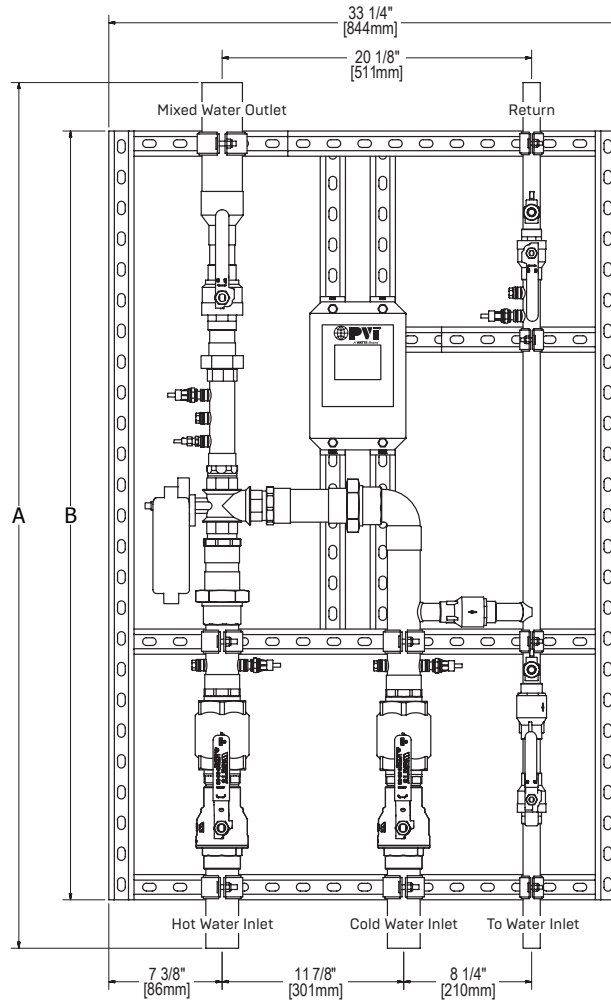
Max Operating Pressure ..... 200 psi (1379 kPa)  
 Max Hot Water Temperature ..... 200°F (93°C)  
 Min Hot Water Supply Temp ... 2°F (1°C) above set pt  
 Hot Water Inlet Temp Range ..... 120-180°F (49-82°C)

Cold Water Inlet Range ..... 39-80°F (4-27°C)  
 Min Flow ..... 0.5 gpm (1.89 lpm)  
 Temp Adjustment Range ..... 80-180°F (27-82°C)  
 Listing /Compliance ..... ASSE 1017, cUPC,  
 NSF, CSA 24/UL873

\*Refer to manual for complete details

## Dimensions

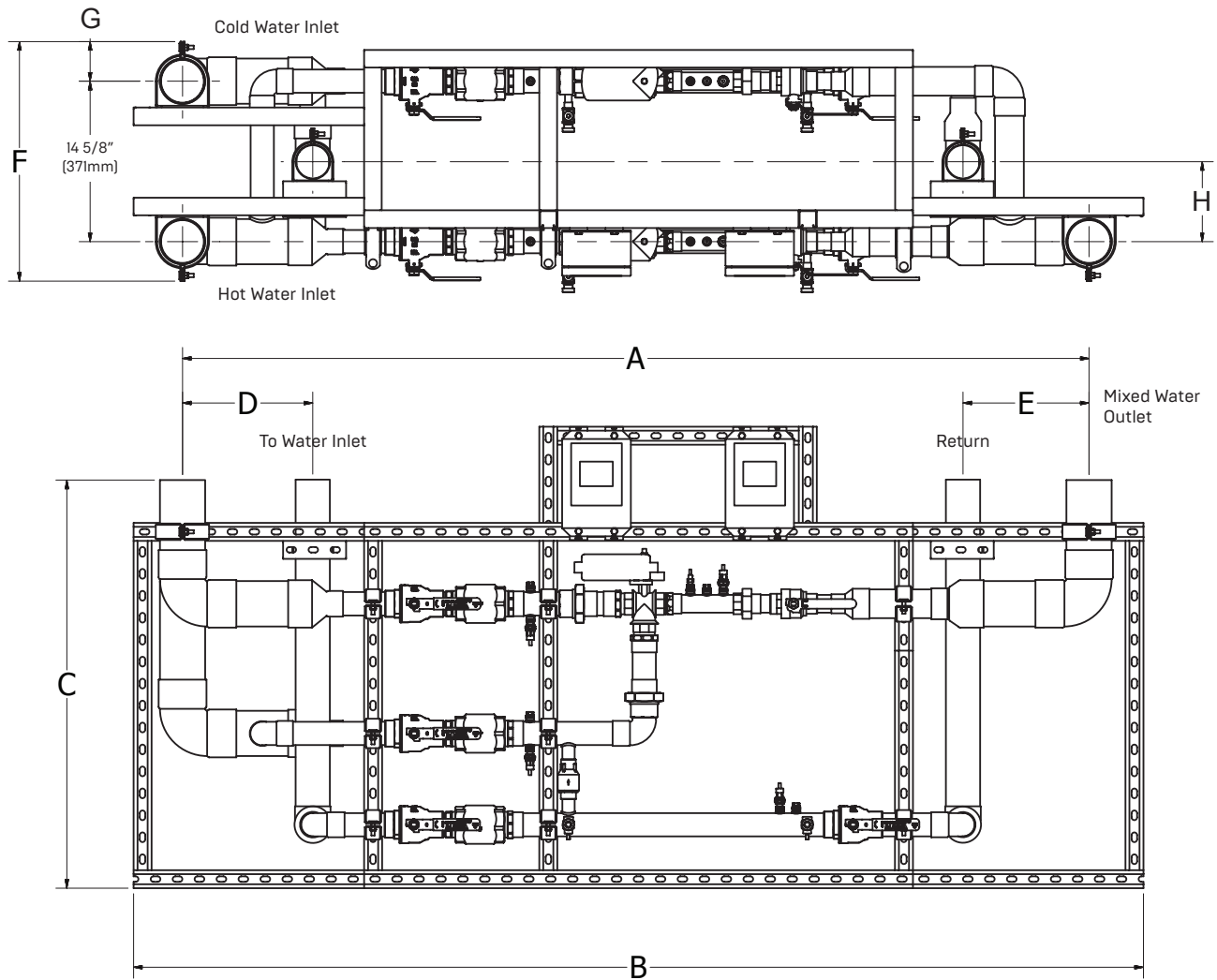
Single Valve DigiTemp  
(models V85-1 and V135-1)



| Model Series   | Inlets        | Outlet        | Return    | A                | B            |
|----------------|---------------|---------------|-----------|------------------|--------------|
| V85-1-A-X-XNP  | 2" (50mm)     | 2 1/2" (63mm) | 1" (25mm) | 56 3/8" (1431mm) | 50" (1270mm) |
| V85-1-A-F-XNP  | 2" (50mm)     | 2 1/2" (63mm) | 1" (25mm) | 56 3/8" (1431mm) | 50" (1270mm) |
| V85-1-A-X-SNP  | 2" (50mm)     | 2 1/2" (63mm) | 1" (25mm) | 78 1/4" (1988mm) | 72" (1829mm) |
| V85-1-A-F-SNP  | 2" (50mm)     | 2 1/2" (63mm) | 1" (25mm) | 78 1/4" (1988mm) | 72" (1829mm) |
| V85-1-B-X-XNP  | 2" (50mm)     | 2 1/2" (63mm) | 2" (50mm) | 56 3/8" (1431mm) | 50" (1270mm) |
| V85-1-B-X-SNP  | 2" (50mm)     | 2 1/2" (63mm) | 2" (50mm) | 56 3/8" (1431mm) | 50" (1270mm) |
| V85-1-B-F-XNP  | 2" (50mm)     | 2 1/2" (63mm) | 2" (50mm) | 78 1/4" (1988mm) | 72" (1829mm) |
| V85-1-B-F-SNP  | 2" (50mm)     | 2 1/2" (63mm) | 2" (50mm) | 78 1/4" (1988mm) | 72" (1829mm) |
| V135-1-A-X-XNP | 2 1/2" (63mm) | 3" (75mm)     | 1" (25mm) | 63 5/8" (1615mm) | 57" (1448mm) |
| V135-1-A-X-SNP | 2 1/2" (63mm) | 3" (75mm)     | 1" (25mm) | 63 5/8" (1615mm) | 57" (1448mm) |
| V135-1-A-F-XNP | 2 1/2" (63mm) | 3" (75mm)     | 1" (25mm) | 80 3/4" (2038mm) | 74" (1880mm) |
| V135-1-A-F-SNP | 2 1/2" (63mm) | 3" (75mm)     | 1" (25mm) | 80 3/4" (2038mm) | 74" (1880mm) |
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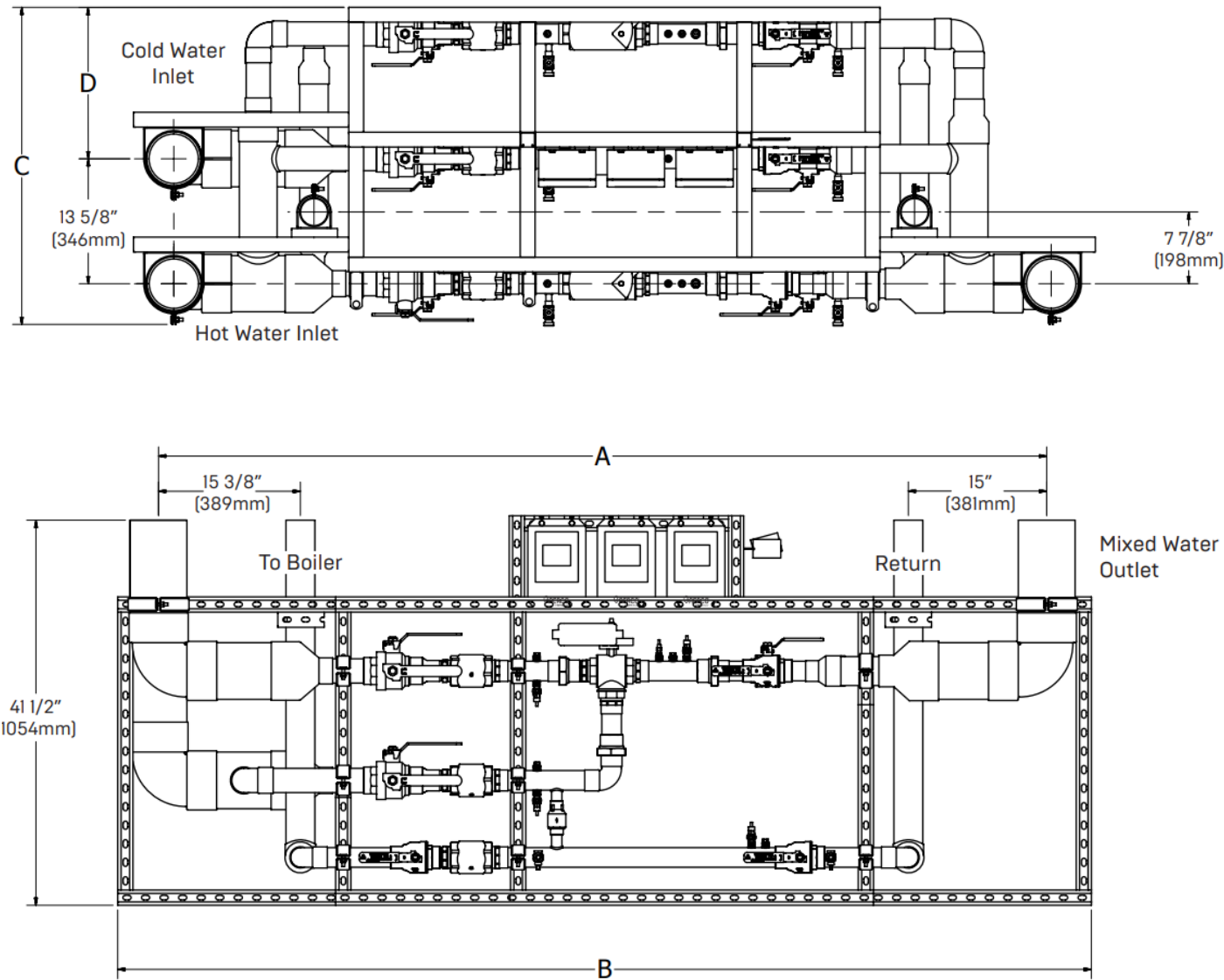
Dual Valve DigiTemp  
(models V85-2 and V135-2)



| Model          | Inlets        | Outlet        | Return       | A                    | B                    | C                   | D                  | E                  | F                  | G                 | H                 |
|----------------|---------------|---------------|--------------|----------------------|----------------------|---------------------|--------------------|--------------------|--------------------|-------------------|-------------------|
| V85-2-C-X-XNP  | 4"<br>(100mm) | 4"<br>(100mm) | 3"<br>(75mm) | 82 5/8"<br>(2099mm)  | 92"<br>(2337mm)      | 37 1/8"<br>(943mm)  | 11 7/8"<br>(301mm) | 11 1/2"<br>(292mm) | 21 7/8"<br>(555mm) | 3 5/8"<br>(92mm)  | 7 1/4"<br>(184mm) |
| V85-2-C-X-SNP  | 4"<br>(100mm) | 4"<br>(100mm) | 3"<br>(75mm) | 90 5/8"<br>(2302mm)  | 100"<br>(2540mm)     | 37 1/8"<br>(943mm)  | 11 7/8"<br>(301mm) | 11 1/2"<br>(292mm) | 21 7/8"<br>(555mm) | 3 5/8"<br>(92mm)  | 7 1/4"<br>(184mm) |
| V85-2-C-F-XNP  | 4"<br>(100mm) | 4"<br>(100mm) | 3"<br>(75mm) | 104 3/8"<br>(2651mm) | 113 3/4"<br>(2889mm) | 37 1/8"<br>(943mm)  | 11 7/8"<br>(301mm) | 11 1/2"<br>(292mm) | 21 7/8"<br>(555mm) | 3 5/8"<br>(92mm)  | 7 1/4"<br>(184mm) |
| V85-2-C-F-SNP  | 4"<br>(100mm) | 4"<br>(100mm) | 3"<br>(75mm) | 112 3/8"<br>(2854mm) | 121 3/4"<br>(3092mm) | 37 1/8"<br>(943mm)  | 11 7/8"<br>(301mm) | 11 1/2"<br>(292mm) | 21 7/8"<br>(555mm) | 3 5/8"<br>(92mm)  | 7 1/4"<br>(184mm) |
| V135-2-C-X-XNP | 6"<br>(150mm) | 6"<br>(150mm) | 3"<br>(75mm) | 91 3/4"<br>(2330mm)  | 100"<br>(2540mm)     | 41 3/4"<br>(1060mm) | 13"<br>(330mm)     | 13 1/2"<br>(344mm) | 23 1/2"<br>(597mm) | 4 1/2"<br>(114mm) | 7 3/8"<br>(187mm) |
| V135-2-C-X-SNP | 6"<br>(150mm) | 6"<br>(150mm) | 3"<br>(75mm) | 103"<br>(2616mm)     | 111 1/4"<br>(2838mm) | 41 3/4"<br>(1060mm) | 13"<br>(330mm)     | 13 1/2"<br>(344mm) | 23 1/2"<br>(597mm) | 4 1/2"<br>(114mm) | 7 3/8"<br>(187mm) |
| V135-2-C-F-XNP | 6"<br>(150mm) | 6"<br>(150mm) | 3"<br>(75mm) | 107 3/4"<br>(2737mm) | 116"<br>(2946mm)     | 41 3/4"<br>(1060mm) | 13"<br>(330mm)     | 13 1/2"<br>(344mm) | 23 1/2"<br>(597mm) | 4 1/2"<br>(114mm) | 7 3/8"<br>(187mm) |
| V135-2-C-F-SNP | 6"<br>(150mm) | 6"<br>(150mm) | 3"<br>(75mm) | 121 3/8"<br>(3083mm) | 130"<br>(3302mm)     | 41 3/4"<br>(1060mm) | 13"<br>(330mm)     | 13 1/2"<br>(344mm) | 23 1/2"<br>(597mm) | 4 1/2"<br>(114mm) | 7 3/8"<br>(187mm) |

Dimensions

Triple Valve DigiTemp  
(models V135-3)



| Model          | Inlets         | Outlet         | Return        | A                     | B                     | C                   | D                   |
|----------------|----------------|----------------|---------------|-----------------------|-----------------------|---------------------|---------------------|
| V135-3-C-X-XNP | 6"<br>(152 mm) | 6"<br>(152 mm) | 3"<br>(75 mm) | 95 3/4"<br>(2432 m)   | 105"<br>(2667 mm)     | 36 1/4"<br>(921 mm) | 18 1/8"<br>(460 mm) |
| V135-3-C-X-SNP | 6"<br>(152 mm) | 6"<br>(152 mm) | 3"<br>(75 mm) | 107"<br>(2718 mm)     | 116 1/4"<br>(2953 mm) | 36 1/4"<br>(921 mm) | 18 1/8"<br>(460 mm) |
| V135-3-C-F-XNP | 6"<br>(152 mm) | 6"<br>(152 mm) | 3"<br>(75 mm) | 111 3/4"<br>(2838 mm) | 121"<br>(3073 mm)     | 36 1/4"<br>(921 mm) | 18 1/8"<br>(460 mm) |
| V135-3-C-F-XNP | 6"<br>(152 mm) | 6"<br>(152 mm) | 3"<br>(75 mm) | 123 3/4"<br>(3143 mm) | 133"<br>(3378 mm)     | 36 1/4"<br>(921 mm) | 18 1/8"<br>(460 mm) |

# Ordering Information

## Standard Capacity - Single Valve

| Valve | Inlets (in)   | Outlet (in)   | Order Code |
|-------|---------------|---------------|------------|
| V85   | 2" (50mm)     | 2 1/2" (63mm) | V85-1      |
| V135  | 2 1/2" (63mm) | 3" (75mm)     | V135-1     |

Return Pipe Size

|    |   |
|----|---|
| 1" | A |
| 2" | B |

Flow/BTU Package

|                  |   |
|------------------|---|
| None             | X |
| Flow/BTU Package | F |

Strainers\*

|           |     |
|-----------|-----|
| None      | XNP |
| On inlets | SNP |

\*Strainers ship loose and must be installed by a plumber at the job site

## High Capacity - Dual Valve

| Valve | Inlets     | Outlet     | Order Code |
|-------|------------|------------|------------|
| V85   | 4" (100mm) | 4" (100mm) | V85-2      |
| V135  | 6" (150mm) | 6" (150mm) | V135-2     |

Return Pipe Size

|    |   |
|----|---|
| 3" | C |
|----|---|

Flow/BTU Package

|                  |   |
|------------------|---|
| None             | X |
| Flow/BTU Package | F |

Strainers

|           |     |
|-----------|-----|
| None      | XNP |
| On inlets | SNP |

## High Capacity - Triple Valve

| Valve | Inlets     | Outlet     | Order Code |
|-------|------------|------------|------------|
| V135  | 6" (150mm) | 6" (150mm) | V135-3     |

Return Pipe Size

|    |   |
|----|---|
| 3" | C |
|----|---|

Flow/BTU Package

|                  |   |
|------------------|---|
| None             | X |
| Flow/BTU Package | F |

Strainers

|           |     |
|-----------|-----|
| None      | XNP |
| On inlets | SNP |

## Sample Specification

Lead free\* digital water temperature control and monitoring system shall feature full-color touchscreen interface which is configurable on location and does not require factory pre-programming. System shall control water temperature to  $\pm 2^{\circ}\text{F}$  in accordance with ASSE 1017 and during periods of low/zero demand and feature a user-programmable high temperature alarm. Unit shall feature Feed Forward or Predictive Control which anticipates changes in system demand and adjusts valve pre-emptively to maintain mixed set point. Controller shall be password protected and feature a user-adjustable outlet temperature range of 80-180°F and an approach temperature of 2°F.

System shall digitally monitor inlet pressure and temperature, mixed outlet temperature, mixed outlet set point, pressure and flow/BTUs (optional), as well as return temperature without the use of an external module. System shall control an engineer specified recirculation pump based on user-set return temperature limits. Controller shall integrate with building automation systems through Bacnet and Modbus protocols and feature local and remote temperature alarms. System will also feature a user-set and controlled, high-temperature sanitization mode for use as part of user's safe and properly designed thermal bacteria eradication protocol. In the event of a power failure or loss of cold water, system will close the hot water supply. System shall be listed/approved to ASSE 1017, cUPC, NSF and CSA 24/UL873 and should be mounted on a heavy-duty welded strut with corrosion resistance coating and factory tested as a complete unit.

System shall be a PVI model \_\_\_\_\_

## Warning

DigiTemp™ provides user-directed control and monitoring of water distribution systems. It is the user's responsibility to select and maintain water temperatures that are safe and appropriate for the water system users and facility. DigiTemp's Sanitization mode is intended for use as part of a user-directed, controlled and supervised protocol that has been safely and properly designed. It is recommended to install DigiTemp™ as part of a ASSE compliant water distribution system, including point-of-use mixings valves. Installation and adjustment of the DigiTemp™ are the responsibility of the owner and installer and must be done by qualified personnel in accordance with the manufacturer's instructions, and complying with all governmental requirements, building and construction codes and standards. The owner and user of the DigiTemp™ is responsible for selecting and installing the product in an appropriate water distribution system, proper sizing, maintaining proper water quality/condition, and deciding what temperature is safe and appropriate for the water distribution users and facility. Always read and follow User Guide & Instruction Manual and all product warnings and labels, and comply with all governmental and safety requirements.

## Notice

A copy of the applicable limited warranty and disclaimers is available by request to PVI.com. The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.



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